CHILD SAFETY

India is planning a network of human breast-milk banks but first needs to put safeguards in place

Breast-milk collected from donors on a large scale need to be checked for adulteration and contamination.

Arun Gupta
Jun 21, 2017 · 02:30 pm
Union Health Secretary CK Mishra inaugurated a human milk bank at Lady Hardinge Medical College earlier this month. The Ministry of Health Family Welfare has been planning a network of human milk banks for 661 newborn care units across the country to feed newborn babies who cannot be nursed by their mothers.

This is a welcome step that can discourage the use of infant formula, which is not as nutritious as human breast-milk. But regulation of human milk banks to ensure safety and quality of milk need to be discussed before the government goes further with the much needed programme.

Human milk used in neonatal intensive care units helps reduce necrotising enterocolitis or NEC in which portions of the bowel undergo tissue death. Use of breast-milk also helps cut down severe infections and colonisation by bacteria in newborns. Human milk banks work by collecting, screening and distributing human milk donated by women. Human milk banking is growing in many countries. According to the World Health Organisation, receiving milk from a human milk bank should be the first alternative for a baby whose mother is not able to breastfeed.

Human milk banking started informally almost a hundred years ago, however the first human milk bank was set up in the United States in mid 1980s. India’s first human milk bank was set up in Mumbai in 1989. Human milk banking has taken off in a big way in Brazil, which has more than 200 such centres. In 2011, Brazil’s milk collection was 1,65,000 litre from 1,66,000 mothers and provided service to 1,70,000 babies. Supported by Brazil, the human milk bank network is growing in Latin and South America. North America, Europe, South Africa, and Australia have also made significant progress. India is just beginning.
Dr Ajay Khera, deputy commissioner for child health, has said that human milk banks will be called as lactation management centres and that human milk banking will be a part of an overall breastfeeding strategy. This is important since donated milk could be harmful for the recipient if adulterated or contaminated. Human milk may be contaminated with bacteria or even viruses like HIV. In the US, human milk is now being sold online but the Food and Drug Administration is urging women not to feed their babies with the milk that has not been screened at a milk bank.

Moreover, when human milk becomes a tradable commodity, there are also risks of adulteration with cow's milk to enhance profit. Researchers in United States found that 10% of its human milk samples were adulterated with cow's milk. In Bengaluru, there was a huge outcry when a private company wanted to set up a commercial human milk bank with doctors and public health advocates calling the proposal “exploitation of poor mothers”.

These risks warrant safeguards. The government should lead the process for developing and regulating operations of human milk banking to ensure safety. Human milk banking guidelines should be vetted by a technical committee comprising of scientists, medical, technical and legal experts. The committee should be free of conflicts of interest. The guidelines should be endorsed by professional associations. The Indian Academy of Pediatrics’ has also developed
following salient features:

- Collection, storage and supply of human milk should be accomplished in a given time frame without adulteration and should be strictly monitored and documented.

- Human milk should not be shared casually.

- Guidelines should indicate who can donate and who can receive human milk.

- A certificate of health should be obtained from healthcare providers of the donor and recipient.

- Well-trained staff should be appointed at a human milk bank, who can screen milk and monitor supply with utmost honesty. They should also be equipped with social skills to interact with donors and recipients.

- Donors should be tested for HIV 1 and 2, Human T-cell lymphotropic virus or HTLV 1 and 2, syphilis, and hepatitis B and C.

- Donors should sign up voluntarily and their consent should be obtained.

- Operations for storage, pasteurisation, checking contamination, and monitoring the milk donations must be clearly defined. Human milk needs to be stored at -20°C. It is then thawed and a bacterial culture is taken from it. The milk is pasteurised and re-cultured before it is dispensed.

- Milk should be monitored during storage to check for bacterial growth.
human milk banking, as well as regulatory mechanisms.

The guidelines should also lay down clearly the order in which infants may receive milk from human milk banks to ensure that newborns who are critically ill or preterm babies are on top of the list. Here too, the critically ill and preterm babies should be allotted on a first-come-first-serve basis to avoid misuse.

**Possible conflicts**

Human milk bank should not be a profit-making industry. Commercial milk banking is open to potential risks since companies can make profits from adulterating donor milk.

Baby food companies should not be allowed to set up or operate human milk banks or even being part of decision making since they have clear conflicts of interests.

An example is the International Breast-milk Bank project, which works as a non-governmental organisation. According to a report, 75% of the milk donations it receives goes to Prolacta Bioscience that makes and sells “human milk fortifiers”. This means they compete to provide human milk to premature or very sick babies who are unable to get their mothers’ milk.
Human milk banks should also avoid ties with breast-milk pump companies as this could create conflicts of interest. Human milk banks should be operated like blood banks or any other human tissue bank. Donors should be told about the nature of the transaction they are involved in.

New mothers should be given every encouragement and support for lactation and breastfeeding. Human milk banks should be an option for women who cannot breastfeed even after they have received such support and counseling. If more women receive good lactation support it will also lead to more human milk donations as lactating mothers can donate any extra milk instead of throwing it away.

Brazil’s human milk banking within a breastfeeding strategy has helped reduce the country’s infant mortality by 73% since 1990. India has good examples of human milk banking at Sion Hospital in Mumbai that was set up in 1989 and the Rajasthan state government’s initiative to provide milk from Tonk’s district hospital to neonates deprived of mother’s milk. But, in scaling up human milk banking across India, the government needs to ensure the right safeguards are in place.

The writer is a paediatrician and founder of the Breastfeeding Promotion Network of India.

Corrections and clarifications
did so knowing that 25% of their donation would go directly to help orphans with HIV in Africa, and that the Project would receive $1 per ounce for the balance (75%) of their donation, which would be used by Prolacta to make life-saving neonatal nutritional products for premature infants in neonatal intensive care units. Prolacta is the only company in the world to offer 100% human milk-based fortifiers for extremely premature infants. Prolacta’s neonatal nutritional products are intended for hospital use only and are available by prescription only in neonatal intensive care units.

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CORONAVIRUS CRISIS

Explainer: How ‘disease detectives’ are battling the coronavirus pandemic

Even epidemiologists are learning as the pandemic progresses.

Smitha Nair
Jul 15, 2020
A man gets off a ladder as he completes a mural paying tribute to “Covid-19 warriors” in New Delhi on Monday. | Reuters

Test, trace and isolate – classic infection control measures – have been widely endorsed as the best way to tackle the Covid-19 pandemic, even as the world waits for a vaccine to be developed. These basic public health principles were evolved by epidemiologists. Physician John Snow’s use of maps and records to track the spread of a cholera outbreak back to its source in 1854 in London, provided the foundation of identifying and tracking diseases.

In this interview with Scroll.in, Professor Madhukar Pai, Canada Research Chair in Epidemiology and Global Health at McGill University, Montreal, explains the role of epidemiologists or ‘disease detectives’ in battling Covid-19, why it’s tough for epidemiological disease models to predict the future of the pandemic and the challenge of imperfect data.
Professor Madhukar Pai.

Public health is the discipline that addresses health at the population level: preventing diseases, protecting and improving the health of communities. We know that epidemiologists are public health scientists and researchers. What exactly does that role entail, in regular, non-pandemic times?
Epidemiology, no doubt, is a key component of public health, but is also widely used in clinical medicine (where we call it ‘clinical epidemiology’)....

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CORONAVIRUS CRISIS

Slow and opaque decisions during Covid-19 crisis put the spotlight on India’s drug regulator

Critics say the organisation has consistently lacked transparency.

Arunabh Saikia
Jun 22, 2020
issued a press statement announcing the launch of its “breakthrough...simple point-of-care home screening kit”. These rapid antibody kits, the company said, had been sourced from “worldwide” partners and had received approval from the “requisite regulatory authorities”.

With the Indian Council of Medical Research’s test kits starting to run scarce and testing having recently opened up to the private sector, the announcement invoked a considerable amount of media interest. News reports hailed these “first of its kind in India” kits that “display accurate results within minutes”. Some even amplified Bione’s false claim that its kits had been approved by the ICMR, the research body spearheading India’s response to the pandemic.

However, India’s drug activists did not greet Bione’s announcement with the same amount of excitement. Their scepticism was not unfounded: rapid tests, which look for disease-fighting antibodies as opposed to the virus itself, could give misleading results and are not reliable diagnostic kits as the company seemed to be marketing them as. ...
CORONAVIRUS CRISIS

Many states have reported fewer TB deaths during the lockdown. Here’s why this is bad news

It suggests the system for tracking tuberculosis patients has collapsed.

Arunabh Saikia
May 29, 2020
India went into a lockdown starting March 24 midnight to contain the outbreak of the novel coronavirus. The eight weeks since then have been marked by reports of patients struggling to access healthcare and medicine. Yet, several states have reported a sharp decline in the number of tuberculosis deaths during this period, data accessed by Scroll.in shows.

Kerala, for instance, reported a nearly 60% decline of tuberculosis-related deaths in April. The state had reported 315 deaths from January to March this year – an average of 105 monthly deaths. In April, the number dropped to 39. In May, the plunge is even starker. Till May 20, the state had reported only four TB-related deaths.

Similarly, neighbouring Karnataka reported 472 TB-related deaths in January, 357 in February, and 292 in March. In April, though, the number sharply fell to 118. As of May 21, the state had reported 20 deaths.

This waning number of deaths during the lockdown is of a pattern.

In Jharkhand, the number of TB-related deaths in the first three months of the year were 118, 106 and 104 respectively. In April, the number dramatically dropped to 35....